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IS 8373-1 (1991): steel launches, Part 1: Single hull passenger ferry launches [TED 18: Inland, Harbour Crafts and Fishing Vessels]



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IS 8373 (Part 1) : 1991

(Reaffirmed 2002)

भारतीय मानक

इस्पात की यात्री-नावें (लांच)—विशिष्ट

भाग 1 एक हल वाली यात्री नावें

(पहला पुनरीक्षण)

Indian Standard

STEEL LAUNCHES — SPECIFICATION

PART 1 SINGLE HULL PASSENGER FERRY LAUNCHES

(First Revision)

UDC 629.122.5 : 669.14

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BUREAU OF INDIAN STANDARDS

MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

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Price Group 2

FOREWORD

This Indian Standard (Part 1) (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Inland and Harbour Craft Sectional Committee had been approved by the Transport Engineering Division Council.

This standard lays down the requirements for passenger ferry steel launches meant for plying on inland waters as defined in Inland Vessels Act as well as within harbour limits extending up to inland zone and are governed by Inland Vessels Act.

The operation of steel launches includes:

- a) Short ferry service;
- b) Long ferry service (without overnight journey)
- c) Passenger-cum-vehicle service; and
- d) Tourist service (short and long services).

This standard is being issued in two parts : Part 2 of this standard deals with survey launches.

Part 2 Survey Launches

Notwithstanding what is stated in the standard the rules and requirement laid down by Classification Societies and Statutory Authorities in all respects shall apply.

This standard was first published in 1977. The present revision has been taken up to bring the standard in line with the current practices. The terminology has been expanded to include new terms. Details pertaining to decks and hull form, speed, safety equipment, passenger and crew accommodation have been added.

In preparation of terminology in this standard, assistance has been derived from ISO 7462-1985 International Standard — Shipbuilding — Principal ship dimensions — Terminology and definitions for computer applications.

Indian Standard

STEEL LAUNCHES — SPECIFICATION

PART 1 SINGLE HULL PASSENGER FERRY LAUNCHES

(First Revision)

1 SCOPE

1.1 This standard lays down the requirements for deck steel launches and other launches which have adequate weathertight protection as required by Inland Vessels Act.

1.2 This standard is applicable to short ferry service.

2 REFERENCES

2.1 The following Indian standards are necessary adjuncts to this standard:

IS No.	Title
3039 : 1980	Structural steel for construction of hulls of ships (<i>first revision</i>)
3268 : 1981	Stockless anchors (for ship's use) (<i>first revision</i>)
3381 : 1965	Cast vertical bollards with and without lugs
4374 : 1980	Mild steel fabricated vertical bollards with and without lugs (<i>first revision</i>)
5220 : 1969	Forged horn cleats
6195 : 1971	Cast open chocks
12267 (Part 1) : 1987	Guidelines for stability for inland and harbour vessels, Part 1 Decked vessels.

3 TERMINOLOGY

For the purpose of this standard, the following

definitions shall apply:

3.1 Launches

Vessels for carrying passengers and personal affects and provided with power propulsion arrangement.

3.2 Perpendicular

A straight line perpendicular to the waterplane of a vessel through a fixed point, as stated by the Classification Rules.

3.2.1 After (Aft) Perpendicular (AP)

Through a fixed point at the stern, normally the after side of the rudder post or centre line of rudder stock in vessels without a rudder post.

3.2.2 Forward Perpendicular (FP)

Through a fixed point at the bow, normally the intersection of the fore side of the stern with the waterline.

3.3 Length Overall (LOA)

The length of vessel measured from forward to aft end, excluding any temporary fender and parallel to centreline as well as baseline of the vessel (*see Fig. 1*).

3.3.1 Length on Waterline (LWL)

The length of vessel at the deepest waterline, parallel to centreline, of the vessel (*see Fig. 1*).

3.3.2 Length between Perpendiculars (LBP)

The length of vessel measured between forward and perpendiculars, parallel to baseline as well as centreline of vessel (*see Fig. 1*).

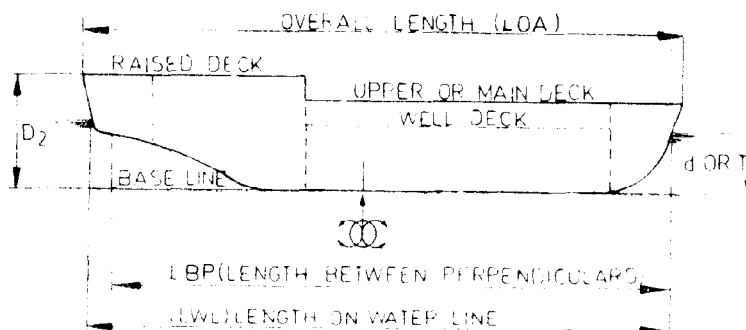


FIG. 1 NOMENCLATURE FOR LAUNCHES (LONGITUDINAL)

3.4 Breadth Moulded (B)

The maximum breadth of vessel inside shell plating line at midship, measured horizontally, perpendicular to centreline of vessel (see Fig. 2).

3.4.1 Breadth Maximum (B Max)

The maximum breadth of vessel, taking into account fenders or such projections, if any, measured in the same method as for (B) above (see Fig. 2).

3.5 Depth Moulded (D)

The moulded depth of vessel is depth at midship at side of deck, being perpendicular distance from top to Keel to Deck at side below Deck Stringer Plating (see Fig. 2).

3.5.1 Depth to Well Deck (D₁)

Similar to above (D) but measured to Well Deck, where such decks exist. (Usually in Pass Launches) (see Fig. 2).

3.5.2 Depth to Raised Deck (D₂)

Similar to above (D) but measured to Raised Deck, where such decks exist. (Usually for after part of a vessel, sometimes including Engine Room) (see Fig. 2).

3.6 Draft (d or T)

Usually mean draft, and measured at midship, and perpendicular height from baseline to particular waterline usually expressed for the deepest waterline (see Fig. 2).

3.6.1 Draft Aft (d_A)

Similarly draft at forward perpendicular.

3.6.2 Draft Forward (d_F)

Similarly draft at forward perpendicular.

3.6.3 Trim

Difference of draft aft and draft forward.

3.6.4 Deck Raised

Deck raised covering certain portion of length over Main deck, usually at the aft and end of the vessel, sometimes including Engine Room.

However, raised deck covers full breadth of vessel, unlike Well Deck.

4 TYPES

4.1 Launches shall be classified into the following types according to their lengths between perpendiculars (LBP):

Type A	15 m
Type B	20 m
Type C	25 m
Type D	30 m

4.2 Deck(s) and Hull Form

Launches shall have one water tight deck, which may be main deck or main/raised deck and well deck as the case may be for local convenience or practice. Hull form may be round bilge type or double chine construction.

5 DIMENSIONS

5.1 The dimensions and other characteristics shall conform to the values given in Table 1.

Table 1 Suggested Dimensions of Steel Launches
(Clause 4.1)

Sl No.	Main Particulars	Type A	Type B	Type C	Type D
(1)	(2)	(3)	(4)	(5)	(6)
i)	Length between perpendiculars (LBP), m	14	20	25	30
ii)	Area per passenger, m ²	0.4	0.4	0.4	0.4

5.2 In case the design calls for as given in Table 1, the following requirements shall be met.

5.2.1 Breadths and draught shall suit the declared national waterways, lock gates and canals. The proper value for draught shall be so selected that the vessel is in a position to navigate throughout the year. The suggested range of draught is 0.8 m to 1.5 m.

5.2.2 The breadth and depth shall be such as to satisfy the minimum stability requirements. The suggested length beam ratio (A/B) shall be between 3.5 to 4.5. The minimum freeboard shall be 0.5 m.

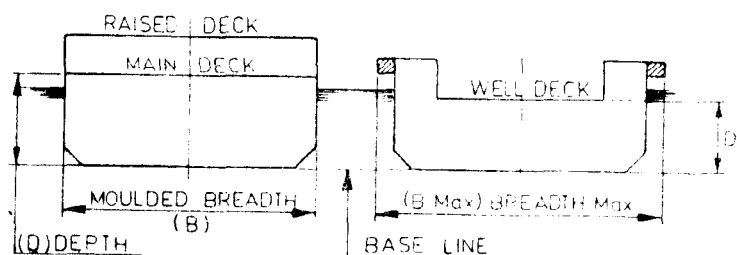


FIG. 2 NOMENCLATURE FOR LAUNCHES (TRANSVERSE)

6 MATERIAL

6.1 The plates and rolled sections used in the fabrication of steel launches shall conform to IS 3039 : 1980.

7 GENERAL REQUIREMENTS

7.1 Stability

The requirements shall be as per the guidelines laid down by statutory body and requirements for stability for inland and harbour vessels as per IS 12267 (Part 1) : 1987.

7.2 Subdivision

The subdivision shall conform to statutory body requirements. The number of transverse water-tight bulkhead than mentioned above.

7.3 Safety Equipment

The following shall comply with statutory requirements depending upon the dimensions, capacity and service conditions, etc:

- a) Life saving equipment;
- b) Fire fighting equipment;
- c) Navigational equipment; and
- d) Bilge pumps.

7.4 Bollards

Fabricated bollards or cast bollards shall be fitted in accordance with IS 4374 : 1980 or IS 3381 : 1965 respectively.

7.5 Cleats

Forged horn cleats shall be fitted in accordance with IS 5220 : 1969. If agreed to between the manufacturer and the purchaser, fabricated cleats may also be fitted.

7.6 Chocks

Cast open chocks shall be fitted in accordance with IS 6195 : 1975.

7.7 Anchors

Stockless anchors in accordance with IS 3268 : 1981.

7.8 Windlass

Types A and B launches shall be fitted with a hand operated capstan and Types C and D launches shall be fitted with a hand-operated windlass.

7.9 Propellers and Propulsion Machinery

Steel launches may be either single or twin screwed, depending on required speed, draught, available indigenous propulsion machinery and satisfying minimum tactical diameter while turning. However, it is suggested to have twin screw for the types C and D launches.

7.10 Passenger Accommodation

The passenger accommodation shall be away from crew accommodation or vehicles on deck wherever they exist. In such cases, stepped or raised deck for the passenger accommodation shall be provided. Benches or seats shall be so arranged that they prevent quick movement of majority passengers from one side to other. The height or the railing shall not be less than 0.9 m and awning to be provided above passenger accommodation having adequate protection from weather. Depending upon the duration of journey, the crew and the passengers, number of toilets, urinals and drinking water taps shall be provided.

7.11 Crew Accommodation

Crew accommodation shall be away from passenger accommodation and shall be provided with separate toilets, etc.

7.12 Deck and Out-fittings

All deck and out-fittings shall conform to relevant Indian Standards.

8 SPEED

8.1 The minimum speed of launches shall be 8 knots provided water current in the operational areas do not exceed 3 knots. Speed means, service speed in still water condition for the available depth of water. Speed of the launches may be up to 12 knots, where water currents are stronger, or wherever faster services are needed.

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BUREAU OF INDIAN STANDARDS

Headquarters :

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones : 331 01 31, 331 13 75

Telegrams : Manaksanstha
(Common to all Offices)

Regional Offices :

	Telephone
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 331 01 31 331 13 75
Eastern : 1/14 C.I.T. Scheme VII M, V.I.P. Road, Maniktola CALCUTTA 700054	37 86 62
Northern : SCO 445-446, Sector 35-C, CHANDIGARH 160036	2 18 43
Southern : C.I.T. Campus, IV Cross Road, MADRAS 600113	41 29 16
Western : Manakalaya, E9 MIDC, Marol, Andheri (East) BOMBAY 400093	6 32 92 95

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